

REMARKS

Summary of the Office Action

A new title is required because the title is allegedly “not sufficiently descriptive.”

The drawings stand objected to because Figures 1 and 2 allegedly should be designated by a legend such as “Prior Art.” Correction is required.

Claims 5-9 stand objected to because of informalities. Correction is required.

Claims 5-9 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Hesselink (U.S. Patent No. 5,995,251) (hereinafter “Hesselink”).

Summary of the Response to the Office Action

Applicants have amended independent claim 5, and dependent claims 8 and 9, to differently describe embodiments of the disclosure of the instant application and/or to improve the form of the claims. Applicants have canceled claims 6 and 7 without prejudice or disclaimer. Applicants have also amended the title in response to the requirement in the Office Action. Accordingly, claims 1-5 and 8-11 remain currently pending, with claims 5 and 8-9 currently under consideration. A Submission of Replacement Drawing Sheets is concurrently filed incorporating an amendment to Figures 1 and 2.

Requirement for a New Title

A new title is required because the title is allegedly “not sufficiently descriptive.” Accordingly, the Title has been amended to be more descriptive in response to the Examiner’s comments at page 2 of the Office Action. Accordingly, withdrawal of the requirement for a new Title is respectfully requested.

Objection to the Drawings

The drawings stand objected to because Figures 1 and 2 allegedly should be designated by a legend such as "Prior Art." Correction is required. In the Submission of Replacement Drawing Sheets filed concurrently herewith, Applicants have amended the drawings by labeling Figures 1 and 2 as "Prior Art" in response to the drawing objection at page 3 of the Office Action. Accordingly, Applicants respectfully request that the objection to the drawings, and the associated requirement for correction, be withdrawn.

Claim Objections

Claims 5-9 stand objected to because of informalities. Correction is required. Applicants have amended independent claim 5, and dependent claims 8 and 9, to differently describe embodiments of the disclosure of the instant application and/or to improve the form of the claims in response to the Examiner's comments at page 3 of the Office Action.. Applicants have canceled claims 6 and 7 without prejudice or disclaimer, rendering the rejection moot. Accordingly, Applicants respectfully request that the objection to claims 5-6, and the associated requirement for correction, be withdrawn.

Rejections under 35 U.S.C. § 102(b)

Claims 5-9 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Hesselink. Applicants have amended independent claim 5, and dependent claims 8 and 9, to differently describe embodiments of the disclosure of the instant application and/or to improve the form of the claims. Also, features of previous dependent claims 6 and 7 have been added to newly-amended independent claim 5. Accordingly, Applicants have canceled dependent claims 6 and 7 without prejudice or disclaimer. To the extent that these rejections might be deemed to

still apply to the claims as newly-amended, the rejections are respectfully traversed for at least the following reasons.

Applicants respectfully submit that independent claim 5 has been newly-amended to include features of previous dependent claims 6 and 7, and further to replace the terms of “boundary generating portion” with “encoder” in the claims. Applicants respectfully submit that the claimed feature of an encoder functioning as the boundary generating portion is supported, for example, by the disclosure at page 17, line 20 - page 18, line 7 and page 24, lines 20-27 of the specification of the instant application.

Applicants respectfully submit that, in the step of generating page data executed within the encoder 25 shown in Fig. 3, boundary portion data for the boundary portion is added to each block. The boundary portion data thus added is utilized as dummy data for the formation of the boundary portion BD (lattice-like connection area) shielding light.

For example, Applicants respectfully submit that the encoder 25 drives the spatial light modulator SLM such that modulated data for a boundary portion BD for 8 blocks as shown in Fig. 7 is generated, and thus generated and two-dimensionally modulated data for 8 blocks as shown in Fig. 8 are superimposed on one another. In this way, the added boundary portion data is replaced with the data for the connection area (the portion indicated by a broken line in Fig. 8, for example). As a result, Applicants respectfully submit that the boundary portion BD (lattice-like connection area) consisting of dark pixels can be defined in advance, and the two-dimensionally modulated blocks can be allocated within the lattice.

Applicants respectfully submit that in each of the above-described embodiment modes, the data to be recorded is grouped into the blocks per n bits (where $n < m$, and $n =$ an integral number), and the two-dimensional modulation where m bit data is allocated to each block having

n bits, by referring to the modulation table is carried out. In addition, Applicants respectfully submit that the boundary portion data (dummy or dark pixels) for the boundary portion BD is added to each of the blocks, thereby generating page data.

Applicants respectfully submit that the applied Hesselink reference discloses a phase mask 29 adjacent to or bonded to the SLM 20 as a random phase mask or a quasi-random phase mask. See col. 4, lines 6-17. Applicants respectfully submit that the phase mask imparts to a spatially modulated beam 23 a different phase at each pixel 22 location of the SLM 20. Therefore, Applicants respectfully submit that the phase mask 29 disclosed in Hesselink does not correspond to an encoder, more specifically a boundary generating portion for driving said spatial light modulator so as to display a plurality of continuous pixels in a light shielding state as said boundary portion in the manner specifically recited in newly-amended independent claim 5 of the instant application.

Further, Applicants respectfully submit that Hesselink does not disclose, or even suggest, a modulation table that is utilized for generating page data by carrying out two-dimensional modulation for allocating m bit data to each block per n bits by referring to the modulation table in the encoder. Applicants respectfully submit that because Hesselink does not specifically disclose the claimed blocks per bit by the modulation table, the claimed modulation table is not inherently taught or disclosed by the device in Hesselink.

Accordingly, Applicants respectfully assert that the rejections under 35 U.S.C. § 102(b) should be withdrawn because Hesselink does not teach or suggest each feature of newly-amended independent claim 5 of the instant application. As pointed out in MPEP § 2131, "[t]o anticipate a claim, the reference must teach every element of the claim." Thus, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or

inherently described, in a single prior art reference. Verdegaal Bros. v. Union Oil Co. Of California, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987)."

Furthermore, Applicants respectfully assert that the dependent claims 8 and 9 are allowable at least because of their dependence from independent claim 5, and the reasons discussed previously.

CONCLUSION

In view of the foregoing, Applicants submit that the pending claims are in condition for allowance, and respectfully request reconsideration and timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response; the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution. A favorable action is awaited.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. § 1.16 and 1.17 which may be required, including

any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0573.

This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

DRINKER, BIDDLE & REATH LLP

A handwritten signature in black ink, appearing to read "Paul A. Fournier", is written over a horizontal line.

Paul A. Fournier
Reg. No.: 41,023

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By:

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